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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,618	07/10/2003	Matthew A. Shepherd	200309528-1	3367

7590 09/07/2004
HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

NGUYEN, LAMSON D

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/616,618

Applicant(s)

SHEPHERD ET AL.

Examiner

Lamson D Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6,9,11-15,17-19,21 and 22 is/are rejected.
- 7) ☒ Claim(s) 3,4,7,8,10,16,20 and 23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 5-6, 9, 11-15, 17-19, 21-22 are rejected under 35

U.S.C. 102(b) as being anticipated by Katayama (6,209,987).

Katayama teaches a printing method comprising:

Claims 1, 13, 17:

- receiving a print job (figure 1, communication section 22, column 4, lines 60-62)
- performing the print job, wherein performing the print job includes printing non-uniform passes per raster in a contiguous vertical block of rasters (figure 4a teaches printing of dots represented by white circles in a single pass and in the middle section represented by both white circles and x's, where the printing is completed by 2 passes)

Claims 2, 15:

- wherein printing non-uniform passes per raster includes printing a first raster with a first number of complete passes and printing a second raster second number of complete passes (figure 4a teaches the top

raster of 5 white circles is done in one pass, whereas the second raster of 5 white circles and 5 x's is printed in 2 passes in figure 4c)

Claim 5:

- interpreting a print job instruction set (figure 1, instruction analysis section 23)
- modifying the print job instruction set to print a non-uniform number of passes per complete raster over a single region of media (figure 4a teach printing of dots represented by white circles in a single pass and in the middle section represented by both white circles and x's, where the printing is completed by 2 passes)

Claim 6: same as claim 2.

Claim 9:

- interpreting type of information contained in a region of a print job (figure 1, instruction analysis section 23)
- adjusting the print job to facilitate printing a number of rasters in less time than would be used for printing the number of rasters using an integer multiple of a minimum number of raster passes used to print each raster once (figure 4a teach printing of dots represented by white circles in a single pass and in the middle section represented by both white circles and x's, where the printing is completed by 2 passes, thus

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teaching two passes would require more time to complete than for one-pass printing)

Claim 11: same as claim 6

Claim 12:

- wherein adjusting the print job to facilitate printing a number of rasters in less time than would be used for printing the number of rasters using an integer multiple of a minimum number of raster passes used to print each raster once includes printing at least two complete rasters with a different number of passes within a contiguous vertical block of rasters (figure 4c teaches top raster of 5 circles is printed in one pass, whereas middle raster of 5 circles and 5 x's is printed in 2 passes)

Claim 14:

- instructions to print at least two complete rasters with a different number of passes ((figure 4c teaches top raster of 5 circles is printed in one pass, whereas middle raster of 5 circles and 5 x's is printed in 2 passes)

Claim 18:

- wherein the means includes a controller interfaced with one or more printhead driver electronics to control the printhead (figure 1, figure 6)

Claim 19:

- the means includes a set of computer executable instructions operable to cause the device to print a first raster with a first number of complete passes and to print a second raster with a second number of complete passes within the contiguous vertical block of rasters (figure 1, communication processor 22, instructions analysis section 23)

Claim 21:

- a printing device comprising a printhead driver, a carriage motor driver, a media motor driver, a processor, a printhead, wherein the printhead driver, the carriage motor driver, the media motor driver, the processor, and the printhead are coupled via interface electronics for moving the printhead and media, and for firing individual nozzles of the printhead, and wherein the printhead driver is operable to interface an instruction set, wherein the instruction set includes instructions to cause the printhead to perform non-uniform passes between rasters within a contiguous vertical block of rasters ((figure 2 teaches carriage motor 1, head 3, paper feed motor 9, carriage 4; figure 6 teaches head driver 40, processor CPU 31)

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Claim 22:

- a remote device have at least one application operable to create a print job
- printing device operable to receive print job from the remote device, wherein the printing device includes a controller a printhead coupled to the controller, and a printhead driver operable to interface instructions from the controller to the printhead, wherein the instructions include instructions to cause the printhead to perform non-uniform passes between rasters within a contiguous vertical block of rasters (figure 1, figures 4a-c)

Allowable Subject Matter


Claims 3-4, 7, 8, 10, 16, 20, and 23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lamson D Nguyen whose telephone number is 571-272-2259. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LAMSON NGUYEN
PRIMARY EXAMINER
05/08/07